## Antenna Report

# **Antenna Report**

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## Antenna Report

## Embedded GSM/WCDMA, WiFi / BT, GPS Antenna

### Overview

The document is the specification of the embedded GSM/WCDMA, WiFi / BT, GPS antenna for phone applications.

### 1.1 Denotations

dBi: Decibel relative isotropic antenna

Tx: Transmit frequency Rx: Receive frequency

GSM: Global Service for Mobile communication WCDMA: Wideband Code Division Multiple Access Peak Gain: The peak value of the antenna gain

### 1.2 Antenna Type

GSM/WCDMA: PIFA type

WiFi / BT: PIFA type

GPS: PIFA type

### 1.3 Antenna Brand

GSM/WCDMA: HTC

WiFi / BT: HTC

**GPS: HTC** 

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## 2 Gain measurements

### 2.1 GSM/WCDMA 3D Antenna Gain Measurement Result

Frequency (MHz)	824	894	1920	2170
Peak Gain (dBi)	-3	-2.2	-1.8	-2.1

### 2.2 WiFi / Bluetooth 3D Antenna Gain Measurement Result

Frequency (MHz)	2400	2450	2500
Peak Gain (dBi)	0.8	1.1	0.6

### 2.3 GPS 3D Antenna Gain Measurement Result

Frequency (MHz)	1575
Peak Gain (dBi)	-2.3

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## 3 Active measurements

### **GSM/WCDMA EIRP and EIS Measurement Result**

	Channel	128	189	251
GSM 850	EIRP (dBm)	29.4	29	29
	Cell Power(dBm)	-109.1	-109.7	-109.7
	Channel	975	42	124
GSM 900	EIRP (dBm)	32.3	33.4	32.3
	Cell Power(dBm)	-109.6	-110.3	-109.7
	Channel	512	698	885
DCS	EIRP (dBm)	32.3	33.7	32.5
	Cell Power(dBm)	-111.7	-111.1	-110.6
	Channel	512	661	810
PCS	EIRP (dBm)	31	30.2	30.2
	Cell Power(dBm)	-109.2	-109.6	-109.1
	Channel	9612	9750	9888
BC 1	EIRP (dBm)	24.4	25.6	25
DC 1	Channel	10562	10700	10838
	Cell Power(dBm)	-114.2	-114.2	-114
BC 8	Channel	2712	2788	2863
	EIRP (dBm)	23.2	24	24.2
	Channel	2937	3013	3088
	Cell Power(dBm)	-111	-112.3	-110.3

### **BT/WIFI EIRP and EIS Measurement Result**

WLAN (11M)				
	CH1	CH7	CH13	
EIRP (dBm)	21.2	22	21.6	
Sensitivity(dBm)	-90	-89	-89	
BT				
	СНО	СН39	CH78	
EIRP (dBm)	1.8	2.8	1.6	
Sensitivity (dBm)	-87	-88	-87	

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4. Antenna Materials
The antenna can not have the materials of plumbum (Pb), halogen and mercury (Hg).

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